

4. Further Notes on Humming-birds collected in High Peru*.
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LESBIA NUNA.

This bird makes its appearance in this district of Peru about the beginning of September, and stays some months. It is very rapid in flight, and has a most beautiful appearance with the long tail-feathers streaming out behind. If by chance two males meet, they fight with great fury, rising higher and higher almost vertically till lost to sight. Whilst the male is hovering over a flower, its tail is never spread out; but when wounded, it skims along the ground with the tail-feathers stretched out to the greatest extent. It is a curious sight to see one of these birds trying to pass from one spot to another a long distance off in a straight line against a strong wind, which, acting on the long tail-feathers, takes it a long way off from the place it was trying to reach. Whilst perched, the two long tail-feathers are a little separated. Very small insects seem to be the principal food of this species, as I am convinced insects are of all other species and genera of Humming-birds; and the nectar of flowers is only partaken of to assist digestion. Why has no Humming-bird been able to live in England, where the cold does not exceed that of the sierras out here at an elevation of 14,000 feet? Again, all other birds, as far as my observation goes, take grit to help in the digestion of their food; but the Humming-bird does not; therefore it must take some equivalent. It is true Humming-birds may be kept for months on sugar and water or honey and water; but after that they commence to droop and die off, evidently from the too stimulating nature of the food.

ACESTRURA MULSANTI.

This bird is found in the virgin forest on the eastern slopes of the Andes, at an elevation of between 8000 and 9000 feet.

It perches generally on the topmost branches of a dead tree of great size, so that to the observer at the foot of the tree it appears to be about the size of a bee. All of a sudden it flies off, and commences to circle round and round, the same as a humble-bee; the circles become gradually larger and larger, till all at once it darts off like a flash of lightning in the direction of the bunches of flowers growing on the large creepers, where it remains hovering for a few seconds, returning afterwards to its perch on the dead tree. Its food must principally consist of very minute insects caught in the air; and by this reason one may account for its remarkably formed tail; for if the two outer tail-feathers were long and broad it would be impossible for the bird to make circles almost on its own axis, especially during a strong wind.

* See P. Z. S. 1873, pp. 187 & 784.

OREONYMPHA NOBILIS.

The first specimen of this bird I obtained was at Tinta; but I have since found it in this province, and also on the highroad from Tinta to Cuzco. How strange it seems, after so many years have passed since the discovery of Peru, and so many distinguished people have travelled over the same road, that they have never made mention nor obtained a specimen of this really beautiful bird.

Its flight is very peculiar. It takes a flight from one flower in the direction of another, perhaps some two or three hundred yards off, and all of a sudden comes to a dead stop, throws the body up vertically, the tail being spread out, and the beautiful crown and beard glittering in the sunshine. This action is frequently repeated in the passage from one flowering shrub to another, evidently for the purpose of taking insects in the air.

This is one of the few Humming-birds where colour is seen to great advantage. In most of the species it is never seen till the bird is shot; this is especially observable in *Aglæactis castelnaudi*, where male and female are adorned with a tuft of white feathers on the breast, and it is impossible to distinguish male from female in the living state.

BOURCIERIA INCA.

This is another most beautiful species, and its habits and flight quite distinct from all others. And now, whilst speaking about flight, it would not be out of place to record my own observations on the subject; for almost all naturalists are agreed that in most of the species the flight is exactly similar; but from this opinion I must beg to differ, as when a Humming-bird flies past me I can tell in a moment if it is new to me by the manner of its flight.

B. inca is found in the wooded *lunas* on the eastern slopes of the Andes, at an elevation of 10,000 feet, and principally resorts to a shrub which grows to the height of ten or twelve feet, bearing beautiful bunches of red wax-like flowers. In one of these bunches there may be perhaps eighty or a hundred distinct flowers; and the bird appears to visit each in succession without missing a single flower, and, from the length of time it necessarily takes hovering over one of the bunches, is easily shot. But of the whole family of Humming-birds it is perhaps the most conspicuous on the wing, with its beautiful plumage of green, with the patch of chestnut on the breast, and the white feathers in the tail. Its flight is very rapid*.

Cuzco, Peru. April 22nd, 1874.

* The following is a complete list of the species of Humming-birds of which specimens have been sent home by Mr. Whitely, with references to his notes upon them in this and his former papers added.—P. L. S.

Phaethornis guyi, P. Z. S. 1873, p. 189.

— *superciliosus*, P. Z. S. 1873, p. 188.

Aphantochroa hyposticta, P. Z. S. 1873, p. 189.

Orcotrochilus estellæ, P. Z. S. 1867, p. 987.

Iolema whitelyana, P. Z. S. 1873, p. 188.

Panoplitès matthewsi, P. Z. S. 1873, p. 784.

Accestrura mulsanti, *suprà*, p. 675.